

REMARKS/ARGUMENTS

In the subject Office Action, the specification was objected to because paragraphs [0008], [0036], [0040] and [0041] were missing serial numbers of various referenced patent applications. Applicant has amended paragraphs [0008], [0036], [0040] and [0041] to eliminate attorney docket references and to add serial numbers not available at the time of original filing.

Claims 9 and 10 were objected to for various typographical errors. Applicant has amended claims 9 and 10 to obviate these objections.

Claims 1-13 stand rejected under 35 U.S.C. 102(b) as being unpatentable over USPN 6,253,546 to Sun et al. (hereafter "Sun et al."). Applicant has amended claims 1, 2, 6, 7, 10 and 11 to more distinctly claim the invention and distinguish the invention over Sun et al. In view of these amendments and the remarks that follow, Applicant hereby traverses the rejections of all claims under 35 U.S.C. 102(b).

Sun et al. discloses a control scheme for an internal combustion engine including a feedforward path and a feedback path. The feedback path is used to compensate torque changes which may result from model discrepancies. More particularly, the feedback control relies on a manifold pressure error to calculate feedback quantities of fuel and spark to compensate for torque variations. (see e.g. col. 3, line 59 – col. 4, line 6 and col. 4, lines 62-65).

The Applicant's invention compensates for increased pumping losses exhibited during lean NOx trap (LNT) regeneration homogeneous operation by applying a compensating torque control. The compensating torque control may include applying increased fueling as needed. The compensating torque control may additionally include adjusting engine control variables such as, but not limited to, spark and fuel injection timing. In contrast to Sun et al., Applicant's invention does not rely upon a feedback control path to accomplish the torque compensation. In fact, Applicant's invention relies upon feed-forward compensation as described, for example, in paragraphs [0038] and [0039] and in originally filed claims 2, 7 and 11 and claims depending therefrom. Applicant has amended claims 1, 2, 6, 7, 10 and 11 to make clear this distinction.

GMC3108


10 of 11

Therefore, Applicant respectfully submits that all claims are adequately patentably distinguished over Sun et al. and that same are in condition for allowance thereover. Applicant respectfully requests that all pending claims 1-13 be allowed to proceed to issue.

If the Examiner has any questions regarding the contents of the present response he may contact Applicants' attorney at the phone number appearing below.

Any fees associated with this response may be charged to General Motors Deposit Account No. 07-0960.

Respectfully submitted,



Vincent A. Cichosz
Registration No. 35,844
Telephone: (248) 676-2798